#### UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450

# NOTICE OF ALLOWANCE AND FEE(S) DUE

25944

7590

03/26/2004

OLIFF & BERRIDGE, PLC P.O. BOX 19928 ALEXANDRIA, VA 22320 EXAMINER DUONG, THOI V

ART UNIT

PAPER NUMBER

2871

DATE MAILED: 03/26/2004

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.	
10/086 529	03/04/2002	Tsuvoshi Maeda	111974	1071	

TITLE OF INVENTION: LIQUID CRYSTAL DEVICE, PROJECTION TYPE DISPLAY AND ELECTRONIC EQUIPMENT

APPLN. TYPE	SMALL ENTITY	ISSUE FEE	PUBLICATION FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1330	\$300	\$1630	06/28/2004

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. <u>PROSECUTION ON THE MERITS IS CLOSED</u>. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE REFLECTS A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE APPLIED IN THIS APPLICATION. THE PTOL-85B (OR AN EQUIVALENT) MUST BE RETURNED WITHIN THIS PERIOD EVEN IF NO FEE IS DUE OR THE APPLICATION WILL BE REGARDED AS ABANDONED.

#### HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status is changed, pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above and notify the United States Patent and Trademark Office of the change in status, or

If the SMALL ENTITY is shown as NO:

- A. Pay TOTAL FEE(S) DUE shown above, or
- B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check the box below and enclose the PUBLICATION FEE and 1/2 the ISSUE FEE shown above.
- ☐ Applicant claims SMALL ENTITY status. See 37 CFR 1.27.
- II. PART B FEE(S) TRANSMITTAL should be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). Even if the fee(s) have already been paid, Part B Fee(s) Transmittal should be completed and returned. If you are charging the fee(s) to your deposit account, section "4b" of Part B Fee(s) Transmittal should be completed and an extra copy of the form should be submitted.
- III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

#### PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: Mail

Mail Stop ISSUE FEE
Commissioner for Patents
P.O. Box 1450
Alexandria Virginia 22313-145

Alexandria, Virginia 22313-1450 (703) 746-4000 or <u>Fax</u> INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 4 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications. Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission. CURRENT CORRESPONDENCE ADDRESS (Note: Legibly mark-up with any corrections or use Block 1) 25944 7590 03/26/2004 OLIFF & BERRIDGE, PLC Certificate of Mailing or Transmission I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being facsimile transmitted to the USPTO, on the date indicated below. P.O. BOX 19928 **ALEXANDRIA, VA 22320** (Depositor's name) (Signature (Date) CONFIRMATION NO. ATTORNEY DOCKET NO. APPLICATION NO. FILING DATE FIRST NAMED INVENTOR Tsuvoshi Maeda 111974 10/086.529 03/04/2002 TITLE OF INVENTION: LIQUID CRYSTAL DEVICE, PROJECTION TYPE DISPLAY AND ELECTRONIC EQUIPMENT DATE DUE APPLN. TYPE SMALL ENTITY ISSUE FEE **PUBLICATION FEE** TOTAL FEE(S) DUE \$1630 06/28/2004 nonprovisional NO \$1330 EXAMINER ART UNIT **CLASS-SUBCLASS** 2871 349-143000 DUONG, THOI V 1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363). 2. For printing on the patent front page, list (1) the names of up to 3 registered patent attorneys or agents OR, alternatively, (2) the name of a single ☐ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached. firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent The Address indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. Use of a Customer attorneys or agents. If no name is listed, no name will be printed. Number is required. 3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type) PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. Inclusion of assignee data is only appropriate when an assignment has been previously submitted to the USPTO or is being submitted under separate cover. Completion of this form is NOT a substitute for filing an assignment. (A) NAME OF ASSIGNEE (B) RESIDENCE: (CITY and STATE OR COUNTRY) ☐ individual ☐ corporation or other private group entity government Please check the appropriate assignee category or categories (will not be printed on the patent); 4a. The following fee(s) are enclosed: 4b. Payment of Fee(s): ☐ Issue Fee A check in the amount of the fee(s) is enclosed. □ Publication Fee ☐ Payment by credit card. Form PTO-2038 is attached. ☐ The Director is hereby authorized by charge the required fee(s), or credit any overpayment, to Deposit Account Number \_\_\_\_\_\_ (enclose an extra copy of this form). ☐ Advance Order - # of Copies Deposit Account Number Director for Patents is requested to apply the Issue Fee and Publication Fee (if any) or to re-apply any previously paid issue fee to the application identified above. (Date) (Authorized Signature) NOTE; The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or oth interest as shown by the records of the United States Patent and Trademark Office. This collection of information is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, Alexandria, Virginia 22313-1450. Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.



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10/086,529	10/086,529 03/04/2002		Tsuyoshi Macda	111974	1071
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OLIFF & BERRIDGE, PLC			DUONG, THOI V		
P.O. BOX 1992 ALEXANDRIA		20		ART UNIT	PAPER NUMBER
1122121112111	.,			2871	
				DATE MAILED: 03/26/200-	1

# Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)

(application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 87 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 87 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) system (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (703) 305-1383. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at (703) 305-8283.

			i/		
	Application No.	Applicant(s)			
	10/086,529	MAEDA ET AL.			
Notice of Allowability	Examiner	Art Unit			
	Thoi V Duong	2871			
The MAILING DATE of this communication apperall claims being allowable, PROSECUTION ON THE MERITS IS herewith (or previously mailed), a Notice of Allowance (PTOL-85) NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RI of the Office or upon petition by the applicant. See 37 CFR 1.313	(OR REMAINS) CLOSED in this app or other appropriate communication GHTS. This application is subject to and MPEP 1308.	olication. If not include will be mailed in due	ed course. <b>THIS</b>		
2. The allowed claim(s) is/are 2,7,15 and 17.					
3. The drawings filed on 03/04/2002 are accepted by the Example 1.	miner.				
<ul> <li>4.   Acknowledgment is made of a claim for foreign priority un</li> <li>a)   All b)   Some* c)   None of the:</li> </ul>					
<ol> <li>Certified copies of the priority documents have</li> </ol>	been received.				
<ol><li>Certified copies of the priority documents have</li></ol>	been received in Application No	·			
<ol> <li>Copies of the certified copies of the priority doc International Bureau (PCT Rule 17.2(a)).</li> </ol>	cuments have been received in this r	national stage applicat	ion from the		
* Certified copies not received:					
5. Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.					
<ul><li>(a)  The translation of the foreign language provisional a</li><li>6. Acknowledgment is made of a claim for domestic priority ur in the first sentence of the specification or in an Application</li></ul>	nder 35 U.S.C. §§ 120 and/or 121 sir	nce a specific referenc	e was included		
Applicant has THREE MONTHS FROM THE "MAILING DATE" of below. Failure to timely comply will result in ABANDONMENT of					
7. A SUBSTITUTE OATH OR DECLARATION must be submit INFORMAL PATENT APPLICATION (PTO-152) which give			OTICE OF		
8. CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.					
(a) I including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached					
1) hereto or 2) to Paper No					
(b) including changes required by the proposed drawing correction filed, which has been approved by the Examiner.					
(c) ☐ including changes required by the attached Examiner's	s Amendment / Comment or in the O	of Paper N	10		
Identifying indicia such as the application number (see 37 CFR 1. each sheet. Replacement sheet(s) should be labeled as such in the			back) of		
9.   DEPOSIT OF and/or INFORMATION about the deposit attached Examiner's comment regarding REQUIREMENT FOR T			lote the		
Attachment(s)					
1⊠ Notice of References Cited (PTO-892)	5☐ Notice of Informal Pa	tent Application (PTO-	·152)		
2 Notice of Draftperson's Patent Drawing Review (PTO-948)	6☐ Interview Summary (F	PTO-413), Paper No	·		
3⊠ Information Disclosure Statements (PTO-1449 or PTO/SB/08 Paper No. <u>0502</u>	), 7☐ Examiner's Amendme	ent/Comment			
4 Examiner's Comment Regarding Requirement for Deposit of Biological Material	8⊠ Examiner's Statemen 9⊡ Other .	t of Reasons for Allow	ance		

#### **DETAILED ACTION**

This office action is in response to the Response to Quayle Action filed
 December 19, 2003.

Accordingly, claims 1, 3-6, 8-14, 16 and 18-40 were cancelled. Currently, claims 2, 7, 15 and 17 are pending in this application.

### Allowable Subject Matter

2. Claims 2, 7, 15 and 17 are allowed.

The following is an examiner's statement of reasons for allowance: none of the prior art of record fairly suggests or shows all of the limitations as claimed. Specifically,

Re claim 2, none of the prior art of record discloses, in combination with other limitations as claimed, a liquid crystal device, comprising a second electrode having an opening, wherein a first electrode and an active element being connected through the opening of said second electrode.

The most relevant reference, USPN 6,166,792 of Miyawaki et al., fails to disclose or suggest a second electrode (reflective electrode) having an opening where a first electrode and an active element are connected together.

As shown in Fig. 1, the reference of Miyawaki et al. discloses a reflective layer 7 having an opening where a pixel electrode 12 and an active element are connected together; however, the reflective layer is not an electrode and, as shown in Fig. 13, the electric field generated between the pixel electrode 12 and the common electrode 15 is perpendicular to the surface of the substrate 1.

Application/Control Number: 10/086,529

Art Unit: 2871

Any comments considered necessary by applicant must be submitted no later

than the payment of the issue fee and, to avoid processing delays, should preferably

accompany the issue fee. Such submissions should be clearly labeled "Comments on

Statement of Reasons for Allowance."

Conclusion

3. Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Thoi V. Duong whose telephone number is (703) 308-

3171. The examiner can normally be reached on Monday-Friday from 8:00 am to 4:30

pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Robert Kim, can be reached at (703) 305-3492.

Thoi Duong Jub

03/10/2004

ROBERT H. KIM SUPERVISORY PATENT EXAMINER TECHNOLOGY CENTER 2800

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